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(71) Applicant
Donald Wood,
22 Keren Grove, Off Jerry Clay Lane, Wrenthorpe,
Wakefield, West Yorkshire

(72) Inventor
Donald Wood

(74) Agent and/or Address for Service
Bailey Walsh & Co.,
5 York Place, Leeds LS1 2SD

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LEQW

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GB 1595912	GB 1157682
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GB 1477139	EP A1 0021240
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(58) Field of search
E1D

(54) Interlocking building blocks

(57) The block has a rib 6 or a groove 8 on one end, and a rib 2 or groove 3 on the top or bottom. It may have a rib 6 on one end and a groove 8 at the other, and a rib 2 on the top and a groove 3 on the bottom or vice versa.

Interlocking tiles and panels are also disclosed.

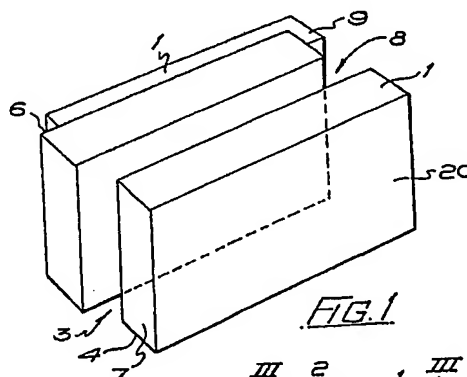


FIG. 1

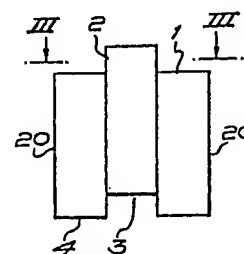


FIG. 2

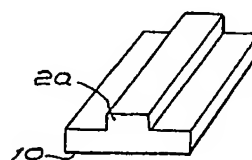


FIG. 4

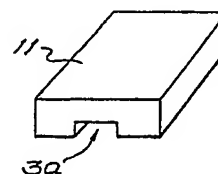


FIG. 5

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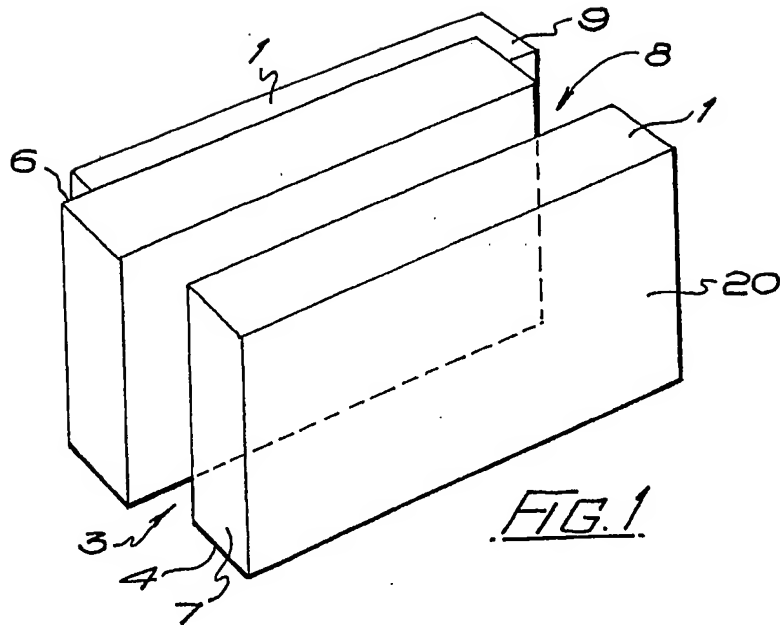


FIG. 1

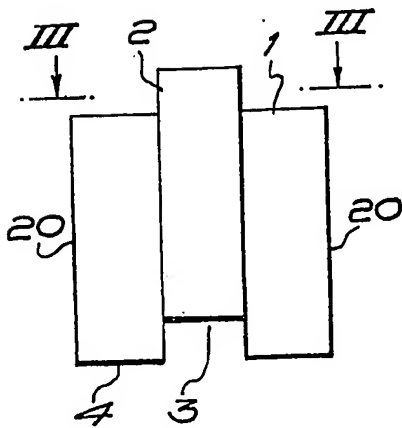


FIG. 2

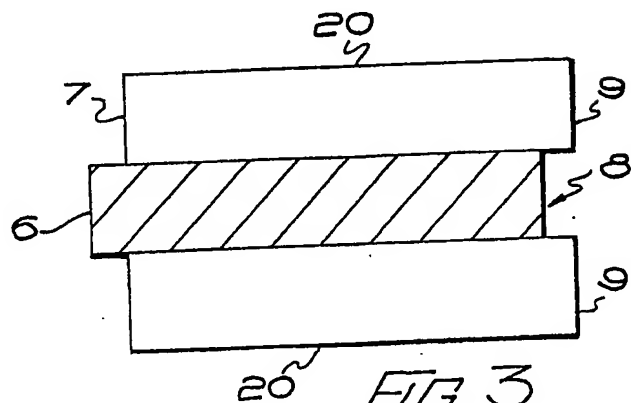


FIG. 3

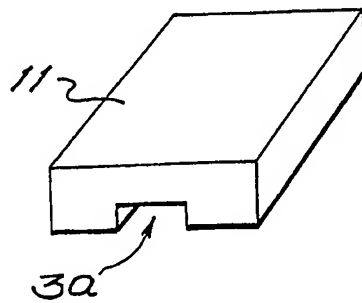


FIG. 5

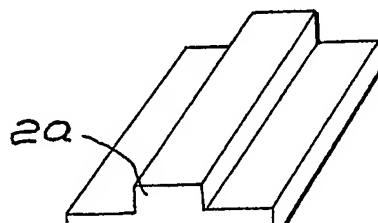


FIG. 4

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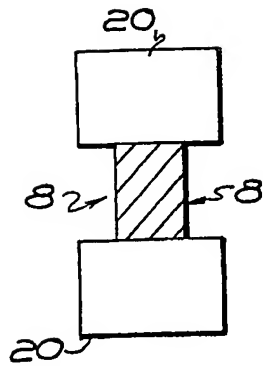


FIG. 6

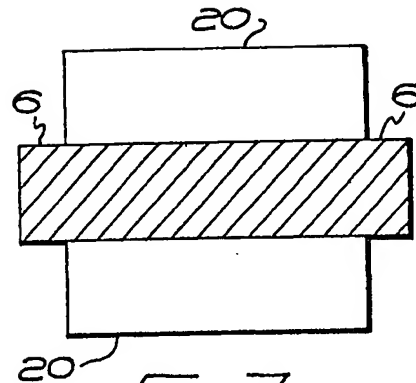


FIG. 7

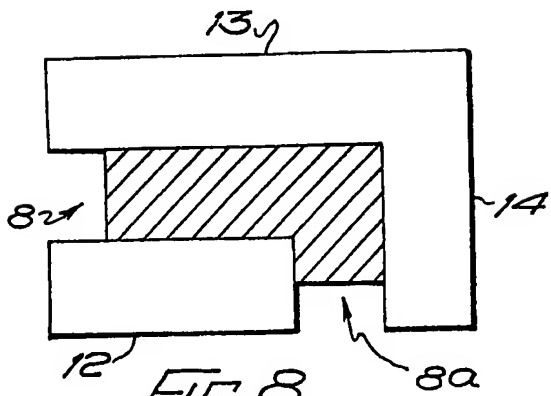


FIG. 8

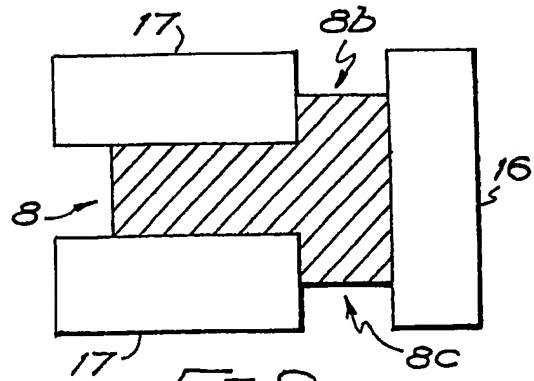


FIG. 9

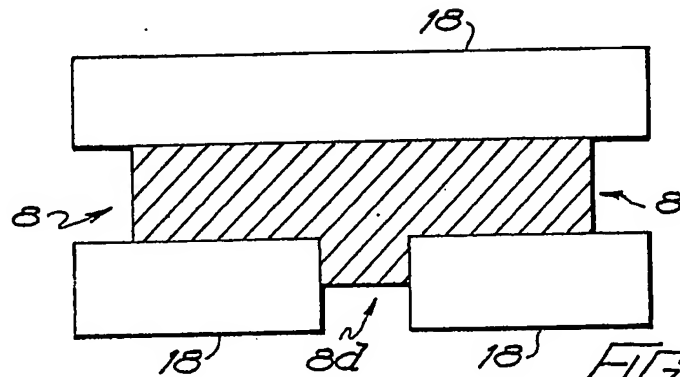


FIG. 10

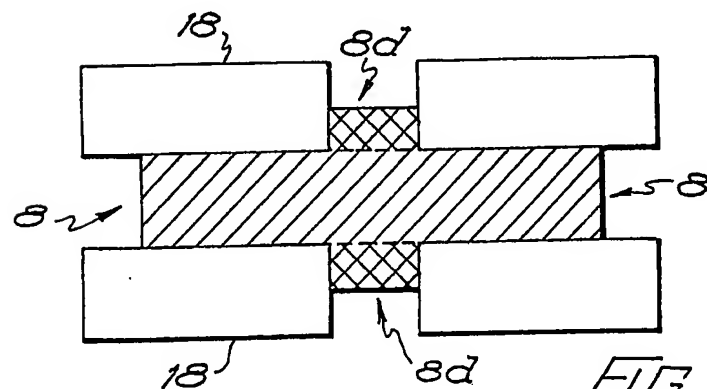


FIG. 11

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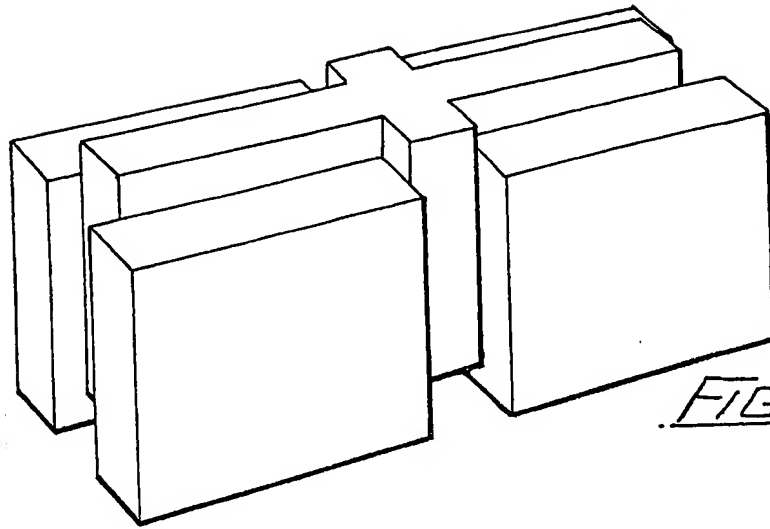


FIG. 12.

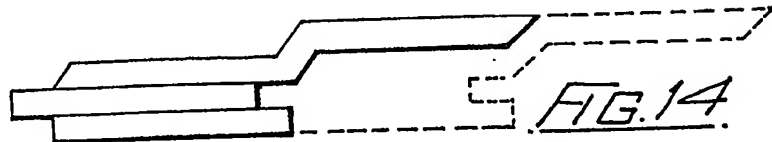


FIG. 14.

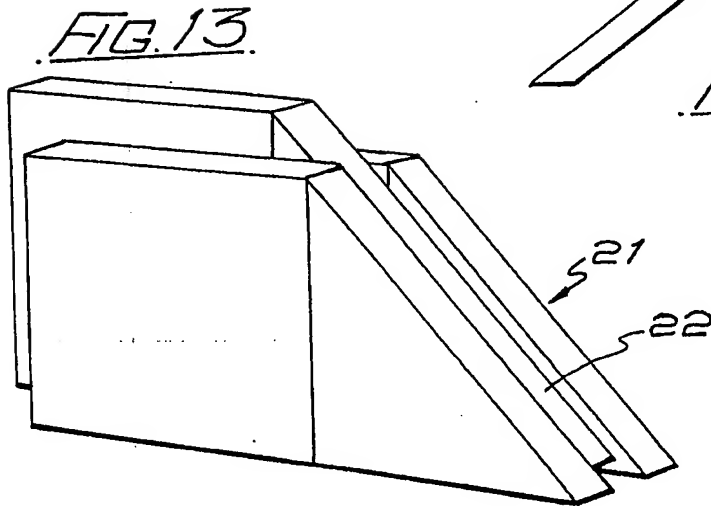


FIG. 13.



FIG. 16.

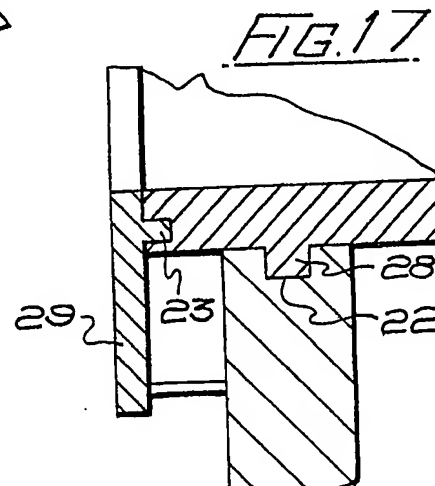
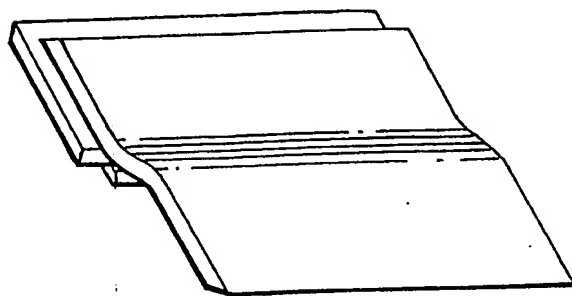


FIG. 17.

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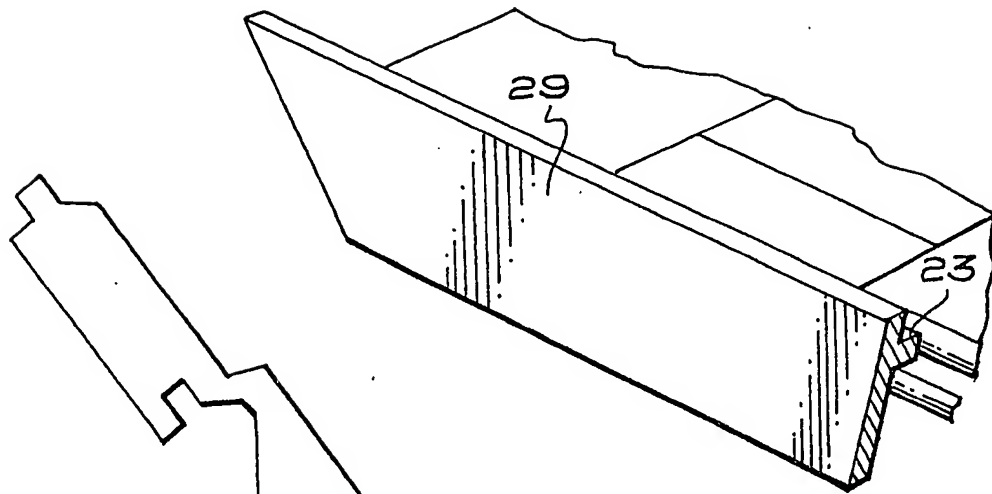


FIG. 18.

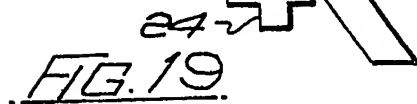


FIG. 19.

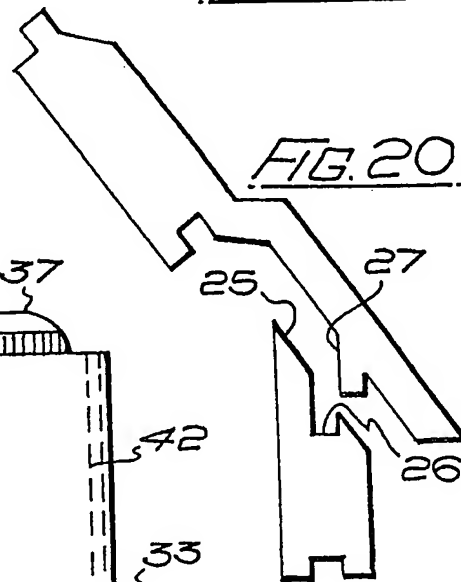


FIG. 20.

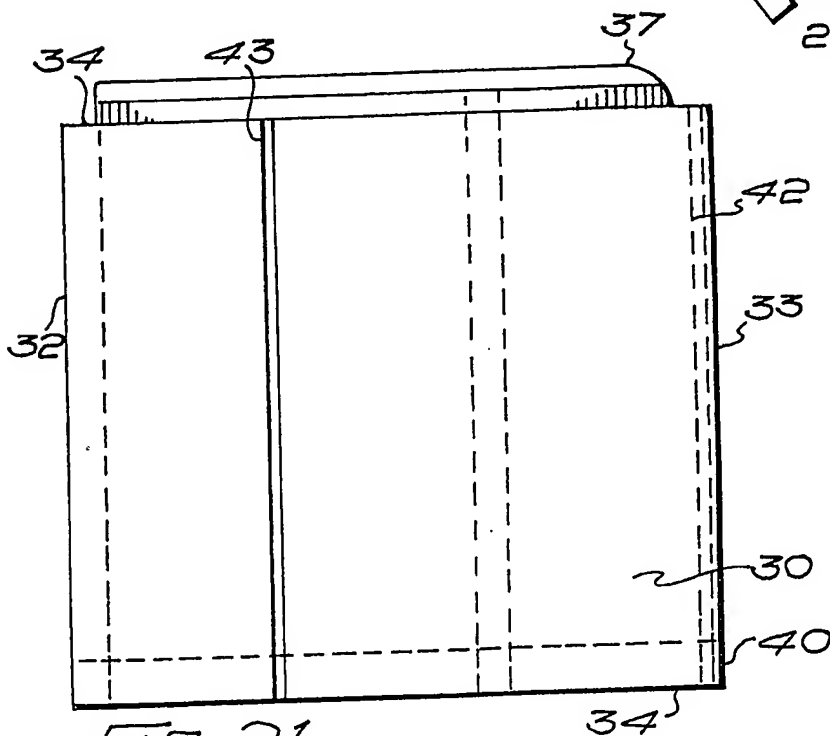


FIG. 21.

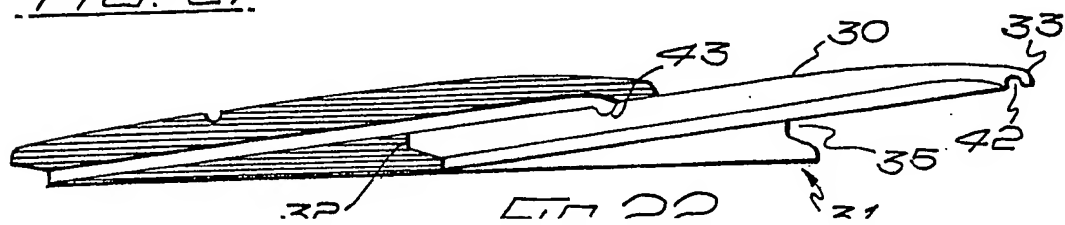
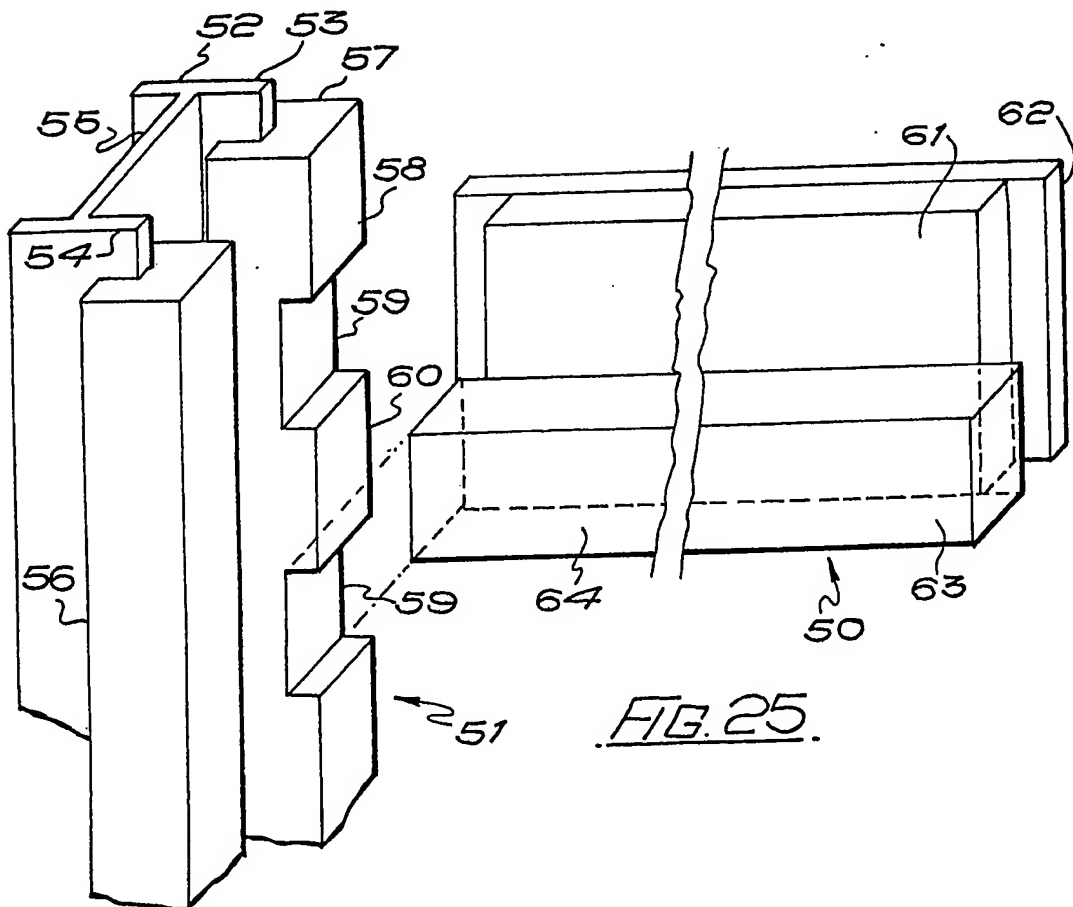
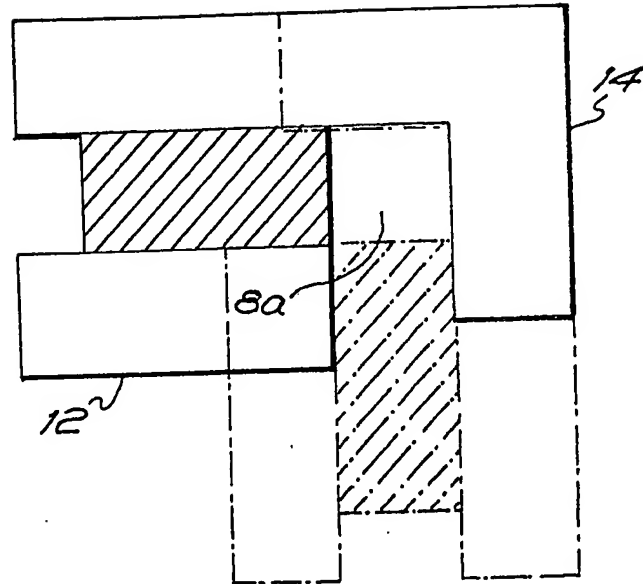
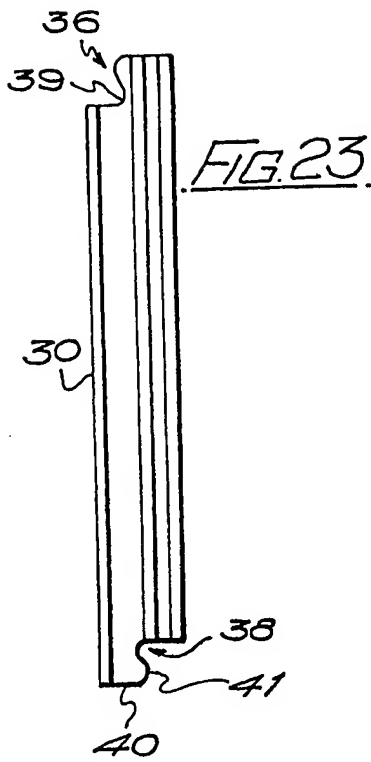


FIG. 22.



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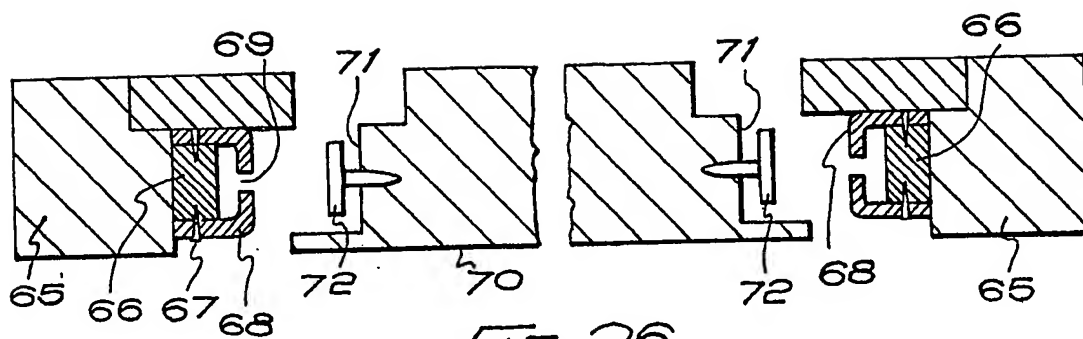


FIG. 26.

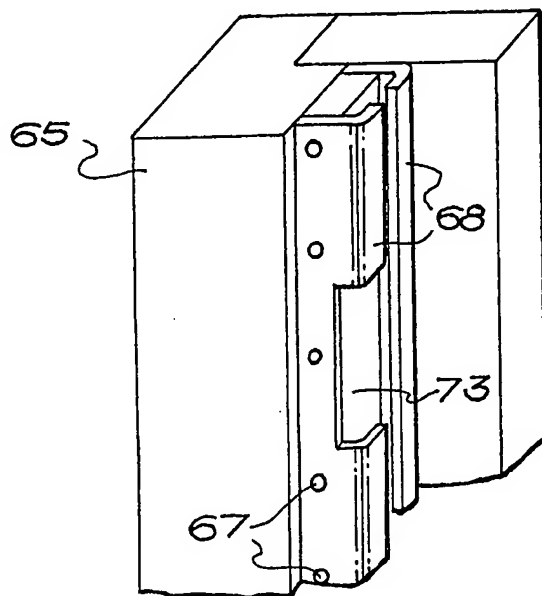


FIG. 27.

SPECIFICATION

Building blocks

- 5 The invention relates to a system of building with blocks in courses and primarily without mortar and to blocks for use with the system. Whilst the system is primarily intended for the construction of buildings and other structures by "do it yourself" amateurs, it may also have application in the commercial constructional industry. Moreover, with suitable adaptation of size and materials of the building elements, the system may have application in the field of educational toys and for the hobbyist.

According to one aspect of the invention there is provided a system of building with blocks in courses wherein each block interlocks with at least one other block in the same course and with at least one other block in an adjacent course, wherein the interlocking is provided within the course by a rib projecting outwardly from and extending upwardly at one end of a block and fitting into a matching groove at an end of an adjacent block, and between courses by a rib projecting outwardly and extending lengthwise of one block fitting into a matching groove in an adjacent block, the lengthwise projection being from either top or bottom of the block.

According to another aspect of the invention there is provided a building block adapted to interlock with a similar block and having a pair of opposed side faces and a pair of opposed ends, a top face and a bottom face, at least one of said top and bottom faces and at least one of said ends having one or other of a projecting rib and a matching groove, the arrangement being that a said rib projecting outwardly from and extending lengthwise of the top or bottom of one block will fit into the groove of a similar block in an adjacent course, and that a said rib projecting outwardly from and extending upwardly at one end of one block will fit into the groove at one end of a similar block in the same course.

Each of said top and bottom faces, and both of said ends may be provided with a projecting rib or matching groove.

The opposed ends may be intended in use to be at least substantially upright.

The opposed side faces are preferably parallel and may be planar or curved in the horizontal plane. The projecting ribs are preferably as long as the matching grooves and may be positioned equidistant between the side faces. The ribs and their associated grooves may be rectangular or of dovetail section.

The upright and lengthwise ribs are preferably of equal and constant width and of equal and constant outward projection. The outward projection of the ribs may be about half their width.

The block may have one of each of an upright rib and a matching groove at opposed end faces whilst another block, intended to be located at a corner of a building or other structure may have the upright groove or outward projection in a

plane at right angles to the plane of the groove or projection at the other end.

Yet another block may have, for the purpose of constructing a T-section in the building an upright projection or groove at one end and an upright projection from or an upright groove in each of the opposed side faces of the block at the other end.

Blocks which are relatively thin may be used as roof tiles or cladding panels, and according to a third aspect of the invention there is provided a tile or panel having top, bottom and side edges, an outer face and opposed underside, the underside having a downwardly opening groove matching the top edge, and one side edge being shaped to interlock with the other side edge of an identical tile or panel.

The lateral interlocking may be effected by means of a projecting rib at an edge of one tile fitting into a matching groove in the edge of the other tile. Alternatively, the lateral interlocking may be effected by the overlapping of matching projections of adjacent identical tiles, the overlapped projection of the one tile having the form of a shallow channel and the overlapping projection of the other having a terminal downward lip.

Embodiments of the invention will now be described by way of example and with reference to the accompanying drawings in which:

Figure 1 is an isometric view of a basic or standard block;

Figure 2 is an end elevation on the block of *Figure 1*;

Figure 3 is a section on lines II-II of *Figure 2*;

Figure 4 is a perspective view of a base element;

Figure 5 is a perspective view of a capping element; and

Figures 6, 7, 8, 9, 10 and *11* are views of special blocks corresponding to the view of *Figure 3*;

Figure 12 is a perspective view of the block of *Figure 11*;

Figure 13 is a perspective view of a block for a gable wall;

Figure 14 is a side view of a roof tile, with an interlocking tile shown in dotted lines;

Figure 15 is a perspective view of one tile of *Figure 14*;

Figure 16 is an end view of a ridge tile for use with the roof tile of *Figure 14*;

Figure 17 is a sectional view of the top of a gable wall showing part of a roof tile;

Figure 18 is a perspective view of a barge board fitted to roof tiles;

Figure 19 is a side view of a roof tile for the lower edge of the roof;

Figure 20 is a vertical section showing uppermost wall block and lowermost tile in a further embodiment.

Figure 21 is a plan view of a tile of a second embodiment,

Figure 22 is a side view of two tiles of *Figure 21* shown interlocking,

Figure 23 is an end view of the tile of *Figure 21*,

Figure 24 is a plan view of a corner building block in a second embodiment,

Figure 25 is an exploded view of a combination

of a cladding panel and support in one embodiment,

Figure 26 is a plan view of a combination of cladding panel and supports in another embodiment, and

Figure 27 is a perspective view of one of the supports of Figure 26.

The standard block has, as shown particularly in Figure 2, a tongue 2 projecting above the general upper surface 1, and extending longitudinally of the block, and a corresponding groove 3 inset in the general lower face 4 and again extending longitudinally of the block. As shown more particularly in Figure 3, the block also has a lateral projection 6 extending outwardly at one end of the block from the general end face 7, whilst at the other end of the block a corresponding groove 8 is inset in the general end face 9.

The depth and width of the groove 3 correspond respectively with the height and width of the tongue 2 and both are, at least in this embodiment, substantially rectangular in section so that one block of this embodiment may be placed upon another such block with the tongue 2 of the lower block fitting into the groove 3 of the other block and the lower edge 4 of the upper block resting upon the upper edge 1 of the lower block.

Similarly, the width and lateral extent of the projection 6 correspond respectively with the width and depth of the groove 8 and both groove and projection are of rectangular section so that two blocks of this embodiment may be placed end to end with their lower surface 4 in a common plane and with the projection 6 of one block fitting into the groove 8 of the other so that the general end faces of the blocks are contiguous. At least in this embodiment the width of the projection 6 also corresponds with the width of the tongue 2 and the depth of the grooves 3 and 8 are also similar.

The grooves are parallel to and equidistant between the side faces 20 of the block, so that the respective side faces of a plurality of interlocking blocks of the same or adjacent courses are coplanar.

It is within the scope of the invention that a block may have a projection such as 6 or a recess such as 8 at both ends of the block, and such special blocks will be referred to below. It is also within the scope of the invention to have a tongue such as 2 or a groove such as 3 at both bottom and top of the block, but with the exceptions to be mentioned below, all the blocks to be described will have an upwardly extending tongue at the top face and a longitudinal groove at the bottom face and will thus appear in end elevation similar to Figure 2.

Dealing first with the exceptions, Figure 4 shows a base element which has an upwardly projecting tongue 2a which corresponds in width and height with tongue 2 of the Figure 1 embodiment and a flat base 10. The base element may have a lateral projection at one end and a corresponding groove at the other end so that it is in effect a variant on the block of Figure 1 lacking the bottom groove 3 and being of reduced overall depth and possibly of

greatly increased length. However, as shown in Figure 4, the lateral extension and groove may be dispensed with.

A capping piece may be provided as shown in Figure 5 in order that the upper surface of a wall-like structure of blocks of the Figure 1 embodiment may be flat. The capping piece as shown has a flat top surface 11 and a longitudinal groove 3a along its underside, the groove corresponding with the groove 3 of the Figure 1 embodiment so that it will accommodate the tongue 2 of a standard block. The capping piece may be of any required length and it may but as shown does not necessarily have a lateral projection and a vertical groove at its opposed ends.

A block of section similar to that shown in either Figure 4 or 5 may find useful application in finishing off doorways and window openings in walls so that they have a flat surface, but instead of the Figure 4 section, a filling piece could be used simply to fill up any groove open at a wall edge. To provide a window sill a capping block may be wider, than the wall blocks are thick so that the edges of the sills project beyond the faces 20 of the blocks.

Whilst it is to be expected that the blocks shown in Figure 1 will normally be used in the orientation shown, they may if necessary and desired be reversed so that the face 4 is uppermost, and if this arrangement is used then what is shown in Figure 5 and has been described as a capping could be used as a base for such blocks, and the article shown in Figure 4 and described as a base could be used as a capping.

Blocks such as shown in Figure 1 are particularly useful in forming walls, such walls being formed by interlocking a plurality of similar blocks end to end in one row or course with their bottom faces 4 in a common plane with other rows of similarly interlocked blocks arranged in superimposed courses with the tongues 2 of each lower block fitting into the groove 3 of one or more superimposed blocks. The blocks of one course may be staggered with respect to the blocks in the next adjacent courses above and below, but the staggering may not be strictly necessary because the positive interlocking of the various projections and grooves provides considerable strength to a structure so formed.

Whilst conventional building bricks are intended to be laid upon and adjacent to one another with an intervening layer of mortar, the blocks of the present invention do not require mortar, but provided that the fit of the projections in the grooves is sufficiently tight, structure of adequate rigidity can be provided without the use of any adhesive substances. The fit can, of course, be made as tight as required for optimum rigidity or as slack as desired for ease of construction. To aid construction, the ribs may be slightly tapered or their external corners may be somewhat rounded. If required the ribs may be shorter than the corresponding grooves. According to requirements and dependent upon the material of constructions of the blocks, the blocks may be stuck together with an appropriate adhesive.

In embodiments not shown at least some of the

ribs and grooves are of dove-tail section; that is to say the grooves become wider as the depth increases, and the ribs become correspondingly wider as their projection increases.

- 5 Whilst a great deal of construction work may be performed with blocks similar to that shown in Figure 1, it may prove necessary in some circumstances to have blocks in which the lateral projection 6 of Figure 3 is replaced by another groove 8 or alternatively where the groove 8 of Figure 3 is replaced by another lateral projection 6. The resultant modifications are shown respectively in Figures 6 and 7 whilst the end elevations of the blocks of Figures 6 and 7 will be identical with Figure 2.

- In order to form a corner to a wall, a block is provided such as is shown in Figure 8 of which one end elevation will be identical with Figure 3. Block 8 has two opposed vertical side faces 12 and 13 and a vertical face 14 perpendicular to face 13. At the end of the block remote from the face 14 there is a vertical slot 8 similar to that shown in Figure 3, whilst there is a further vertical slot 8a inset with respect to the face 12 and the end 15 of face 14. Blocks such as those shown in Figures 3 and 7 may be fitted into either end of the block of Figure 8 at right angles to one another so as to construct a wall with a right angled corner. It may be mentioned at this point that the faces 13 and 14, or the face 12 or the faces 12, 13 and 14 may be provided with a surface finish appropriate to an external wall surface.

- In order to tie a first wall to a second wall at right angles a block such as that shown in Figure 9 may be used. This block has a vertical end face 16 which forms part of a running wall, the other parts being provided by the side walls of blocks of Figure 1 style of which the projections 6 are inserted respectively into vertical slots 8b and 8c. The block of Figure 9 also has a pair of mutually opposed faces 17, each perpendicular to face 16. Intermediate the faces 17, at the end of the block remote from face 16, a vertical slot 8 is provided corresponding with the slot 8 of the Figure 3 embodiment. The projection 6 of a block of the Figure 3 embodiment may be inserted into the slot 8 whereby the side faces of the Figure 3 blocks effectively extend the faces 17 of the Figure 9 block.

- The block shown in Figure 10 provides an alternative manner of forming a T-junction in a wall. The block is similar to an elongated version of the Figure 6 embodiment, having a vertical slot 8 at each of its opposed ends. However, additionally, the block has vertical slot 8d perpendicular to the slots 8 intermediate those ends and inset into one of the side faces 18. The projection 6 of a block of Figure 3 style may be inserted into each of the two slots 8 and the slot 8d of the Figure 10 block, and a block of the Figure 9 embodiment may be fitted on top of the thus extended Figure 10 block to provide the beginnings of a further course in which the regular blocks will generally be staggered.

- The block shown in Figure 11 is similar to that shown in Figure 10 with the difference that there is a vertical slot 8d in each of the side faces 18 as

well as slots 8 in the opposed end faces. This block is used for the construction of two walls which cross at right angles. In this case a block of the same type will be used in each course, the block in one course being laid at right angles to the block in the next course.

- Whilst the blocks of the embodiments shown in Figures 8, 9, 10 and 11 have all been shown with vertical slots for accommodating a projection such as projection 6 of the Figure 3 embodiment, it will be understood that one or more of the slots may be replaced by a projection similar to the projection 6 of the Figure 3 block.

- The upward projection in the blocks of Figures 8 to 11 are matched by corresponding grooves in the bottom faces thereof.

- The depth of the slots 8, 8a, 8b, 8c, 8d are, as shown, less than, and indeed approximately half their corresponding width. One particularly advantageous result of this can be illustrated by reference to Figure 11 wherein the doubly crossed hatched portions of the upper projection are seen in the perspective view of Figure 12 as lateral projections which precisely locate the slots on the underside of a superimposed block of similar type.

- Figure 24 represents a variant of the block of Figure 8, in which the face 14 is narrower and the upright slot 8a is deeper. If the block is laid on top of a similar block but of opposite "hand" as shown in chain dotted lines, it will be clear that a square-sectioned vertical hole will be revealed. This hole may conveniently accommodate a vertical rod for reinforcing and ensuring the verticality of the wall.

- It will be seen that the end of face 14 is not in alignment with the plane of face 12; the non-alignment of the lands at opposite sides of a groove (be that groove upright in an end face or lengthwise in a top or bottom face) may, if required, and especially if matched by a similar non-alignment of lands at either side of the corresponding ribs of a block with which it is to interlock, be applied to another of the blocks described or to be described.

- The grooves and projections in these embodiments are approximately one third of the total width of the blocks. In view of this and although it is likely that the block will normally be an integral structure, there is a possibility that the standard block of Figure 1 could be made of three separate flat layers of similar size secured together face-to-face, an intermediate layer sandwiched between and upwardly and laterally displaced relative to the other two layers. In other embodiments the grooves and projections may be a different fraction of the width of the blocks.

- An alternative manner of manufacture of the blocks of the invention would be to form them in the first place with grooves along both top and bottom edges and vertically at both ends and subsequently an insert strip would be fitted into one or more of the grooves. The insert strip would be as wide as the groove and twice the depth of the groove so that it provided the required projection. If an insert strip of the same length as the block were inserted in the top groove of a block but displaced longitudinally thereof to project outwardly

at one end it would itself provide also a projecting rib (albeit of short length) for the end of the block.

Such inserts may, if required, provide a rectangular upward rib and a lateral dove-tail rib.

5 Whilst in all the illustrated embodiments the side walls 20 of the block have been shown to be flat, but it is within the scope of the invention to have blocks with curved walls. In such curved blocks the lengthwise projections and grooves will likewise be
10 curved. Curved blocks may be used to construct chimneys, towers, tunnels or sewers.

In order, for example, to form a gable wall, blocks may be produced generally as described but as shown in Figure 13 having one end 21 inclined
15 rather than vertical. This end, for a reason to be disclosed below, has an inclined groove 22 rather than a projection.

The blocks may be made of concrete or of fired clay or other suitable materials and be used for the
20 construction of small buildings such as sheds or garages or garden boundary walls and will be particularly suitable for use by enthusiastic amateurs. It is also expected that the block may find application for commercial building operations and possibly
25 also for sea defences. If constructed on a small scale and possibly constructed of light materials such as plastics, blocks as described may provide an educational toy or constructional kit for juveniles.

30 Figure 16 shows a ridge tile suitable for use in relation to tiles of the form of Figures 14 and 15. Both ridge tiles and ordinary (Figure 13) tiles will be available with one each of a lateral projection and groove, but both styles will also advantageously
35 be available with a groove at each side so that at the lateral edges of the roof there will be a continuous slot which the rearwardly projecting tongue 23 of a barge-board 29 (Figure 18) may be fitted.

40 As shown in Figure 17 those tiles bordering on the lateral edge of a gable roof will have, in addition to the lateral groove, a downwardly projecting rib 28 on their undersides set inwardly of and parallel to the outer edge such as will fit into the
45 grooves 22 of the blocks of the form of Figure 13.

In order to fill the gap between the top of a wall and the lowest course of the roof tiles a triangular sectioned filling piece will be required. This may be formed integrally with the tiles as shown in Figure
50 19 of which an embodiment not shown has a groove instead of the downward projection 24. Alternatively a wall block may be provided as shown in Figure 20 with an inclined top face 25. Advantageously this top face has a longitudinal groove 26
55 into which can be fitted a downward rib 27 formed on the underside of the lowermost tiles parallel to the lowermost edges thereof.

The tile shown in Figures 21—23 has an upper surface 30, a lower surface 31, profiled top and
60 bottom edges 32, 33, (relative to their intended positions on a sloping roof) and side edges 34. The upper surface is a substantially constant, slightly convex curve as seen in side elevation. The lower surface is discontinuous, comprising a first planar
65 section extending from the top edge at a slight an-

gle to the tangent to the convex curve at that edge, and a second planar section extending from the bottom edge and at an even smaller angle to the tangent to the curve at the lower edge.

70 The tile is thus thicker intermediate the top and bottom edges, and between the first and second planar sections a groove 35 is formed, parallel to the top edge 32 and profiled snugly to accommodate the top edge of an underlying identical tile.

75 The groove is twice as far from the top edge as from the bottom edge, so that an underlying tile, fitted into the groove, is overlapped by a third of its height (regarded as its dimension between top and bottom edges).

80 The groove 35 may be profiled to accommodate not only the top edge of an adjacent tile but also a S-sectioned fastening strip capable of being attached to roof members so that the tile may be secured to the roof without the need for nails
85 passing through the tiles.

To one side the lower surface of the tile projects beyond the convex upper surface, the upper face 36 of the lateral projection 37 taking the form of the base and outer wall of a shallow rectilinear
90 channel 39. To the other side of the tile, the upper surface similarly projects beyond the two planar sections of the lower surface, the underface 38 of the projection 40 terminating laterally in a downward lip 41 dimensioned to fit slidingly into the channel 39 of a laterally located identical tile with the upper and lower surfaces of the first tile in register with those of the second.

A shallow groove 42 is formed in the lower surface of the tile parallel and close to the bottom
100 edge to reduce the chance of rain water advancing up between overlapping tiles by capillary action. A similar groove 43 is provided in the upper surface parallel to the top edge and positioned where it will be covered by an overlying tile.

105 The above description relates to a standard tile for use other than at the edge of a roof. It is to be understood that the tile may be adapted for use at the top, bottom and sides of a roof in a manner similar to that described in relation to the tile of
110 Figures 14 and 15.

Whilst reference has been made above generally to roof tiles, similar constructions and arrangements may be applied, with adaptation if necessary to cladding panels.

115 For the cladding of industrial or other buildings having a preformed rigid skeleton of elongate members spaced apart so closely that a single roof tile or wall block can conveniently span the distance between adjacent parallel members, I provide a block or as it were a tile, preferably
120 provided with means as described above for interlocking with other identical elements above and/or below but in some instances at least to some extent differing in construction at their lateral edges, and a modification or adaptation of the elongate members themselves.

If the adjacent elongate members have flanges in a plane parallel to that of the required wall, such members being for example H, I or L-sectioned steel girders it may be possible, though probably
130

impractical, to employ cladding elements wide enough to extend behind the flanges of both members. The impracticability of the arrangement in normal circumstances lies in the difficulty of locating the elements in the stated position when the only access is from the front of the flanges.

According to a still further aspect of my invention therefore I provide for cladding a building having a rigid skeletal structure, the combination of a pair of elongate members presenting parallel mutually facing edges, at least one cladding panel, and means for holding opposed end portions of the panel against rearward faces (relative to the face of the cladding panel) of the respective elongate members the edge of at least one of said elongate members being rebated over a plurality of spaced apart length portions, said combination being for assembly by introducing an end portion of said at least one cladding panel rearwardly through one or more of the rebates and lowering or raising the same to bear against the rearward faces of the elongate members.

Preferably each rebated length portion is no longer than the depth of the panel; preferably again each rebated length portion is no longer than half the depth of the cladding panel.

The pair of elongate members may comprise the flanges of a pair of girders of H, I or L-section. However, it may be inconvenient to provide those flanges with the rebates described, and adaptor strips may be provided to fit over the flanges, said adaptor strips having longitudinal edges with spaced apart rebates and, between the rebates, rearward faces against which the end portions of the panel may bear.

Non-limiting embodiments of the still further aspect of the invention will now be described by reference to Figures 25, 26 and 27.

Figure 25 shows a combination of a cladding panel 50 and one of a pair of uprights intended together to support the panel 50.

The upright 51 comprises a rigid vertical I-section girder 52 having flanges 53 and 54 projecting in parallel planes to the right, as seen in the figure of central web 55.

To the flange 54 is fitted a strip 56 of rectangular cross section and having in one of its longitudinal faces a lengthwise slot into which the flange 54 is a tight fit.

To the flange 53 a similar strip 57 is similarly fitted, but the edge 58 of strip 57 opposite to that which has the lengthwise slot is provided with rebates 59 spaced apart by unrebated portions 60.

Turning now to the panel 50, this comprises a rectangular block 61 faced with a facing sheet 62 of similar depth but somewhat greater width. To the face of the block 61 opposite to that to which facing 62 is attached a rectangular block 63 is secured. The block 63 is half the depth of block 61 and its bottom face is coplanar with the bottom face of block 61.

The width of block 63 is intermediate the width of block 61 and facing 62 and is arranged to project laterally of block 61 equally at each end thereof

The extent to which the block 63 projects beyond block 61 at each end corresponds to the depth of the recesses 59, the thickness of block 63 corresponds to the spacing between strips 56 and 57 and the thickness of block 61 is similar to the thickness of strip 57.

This arrangement provides that the panel 50 can be secured to the upright 51 and a corresponding upright (not shown) of reverse hand but otherwise identical with upright 51, the other upright being arranged with its recessed edge facing the recessed edge of upright 51. The panel 50 is brought up to the rear of the upright 51 as shown in the figure, the lateral projections of the block 63 are aligned with, say, the lower recess 59 shown in the figure at one side and a corresponding recess in the other upright not shown. The panel is then moved forwardly in the figure, the projections passing completely through the recess until the facing sheet 62 engages the outer face of the strip 57 and the inner face 64 of block 63 engages the inner face of strip 56.

The panel 50 may then be slid upwardly or, preferably, downwardly with the projecting ends of block 63 in engagement with the inner longitudinal surfaces of strip 56 and, when it is not recessed, strip 57. If the panel 50 is brought to rest with the upper edge of block 63 in alignment with the lower edge of the lower of the recesses 59 shown, the upper edge of block 61 will be in alignment with the upper edge of recess 59 and is thus in a position to support a further panel identical with panel 50 similarly introduced through the upper of the recesses 59 and similarly lowered so that the endwise projection is located against the inner face of portion 60 of strip 57.

The embodiment is susceptible of various modifications. Thus the panel 50 may be provided with a longitudinal rib or corresponding groove along its upper and lower edges for interlocking with panels set above and below. The recesses 59 may be in staggered relationship as between one upright and the adjacent upright to the corresponding adjustment of the position of the lateral projections of the panel. The block 61 may be twice the depth of that shown and be provided with two blocks 63 space apart by half the depth of the blocks 61 whereby at each end of the panel 2 endwise projections may be passed simultaneously through two adjacent recesses 59 of the upright 51.

In the embodiment shown in Figures, 26 and 27 a pair of uprights 65, constructed of say concrete or wood have secured to their mutually facing edges longitudinal strips 66 to which are secured by means of screws or other fasteners 67 a pair of L-sectioned strips 68 of metal or plastics which define in transverse section and together with strip 66 a T-shaped orifice 69.

Panel 70 of such width as to span the gap between the two uprights is provided at intervals along its lateral edges 71 with T-shaped projections 72 of such dimension as to fit into the T-sectioned opening 69.

The dimensions and arrangement are such that the members 72 at the respective edges of the

panel 70 could be introduced into the corresponding slots 69 from the top of the posts 65 and slid downwardly for as great distance as necessary. However, to obviate the necessity for excessive downward traverse of the panel 70, the outermost of the L-sectioned strips 68 secured to the strip 66 on each upright 68 is cut away as shown in Figure 27 over lengthwise portions 73 of length corresponding to the length of the T-portions 72. Thus the T-sectioned projections 72 can be introduced into the correspondingly shaped slot 69 through the opening 73 by horizontal movement and subsequently the panel can be raised or, preferably, lowered so that the members 72 lie in the similarly sectioned groove 69 between those portions of the strip 68 cut away.

Whilst in Figure 26 the vertical groove 69 is shown to be formed at only one face of upright 65, the invention will be seen also to contemplate a similar groove formed at at least one other face of the upright. Moreover, a similar groove or grooves may be formed at the end of a wall so that a panel 70 can be secured to it either in the direction of the wall or at right angles to it. This arrangement may find use in the construction of temporary internal partition walls; any grooves 69 not used in any particular configuration of partitioning may be protected by the plastic cover fitted in the same manner as one end of panel 70.

Again a vertical groove such as 69 in Figure 26 may be formed at the end of a wall, the end of the wall and the groove being at 45° to the face of the wall. The face 71 and projection 72 of panel 70 may also be at 45° to the face of the panel, so that the panel could be secured to the wall at right angles thereto.

Whilst the appended claims seek to define the present invention as envisaged by the applicant at the time of submitting this application, the applicant reserves the right within the law to claim as an invention in general or specific terms whether by way of divisional application or otherwise, any feature, method and/or aspect or any combination of features, methods and/or aspects disclosed herein which is or are subsequently identified to be inventive, and regardless of whether, in the case of a combination as aforesaid, the features, methods and/or aspects are disclosed individually in a single one of or in respective embodiments disclosed herein.

CLAIMS

1. A system of building with blocks in courses wherein each block interlocks with at least one other block in the same course and with at least one other block in an adjacent course, wherein the interlocking is provided within the course by a rib projecting outwardly from and extending upwardly at one end of a block and fitting into a matching groove at an end of an adjacent block, and between courses by a rib projecting outwardly and extending lengthwise of one block fitting into a matching groove in an adjacent block, the lengthwise projection being from either top or bottom of

the block.

2. A building block adapted to interlock with a similar block and having a pair of opposed side faces and a pair of opposed ends, a top face and a bottom face, at least one of said top and bottom faces and at least one of said ends having one or other of a projecting rib and a matching groove, the arrangement being that a said rib projecting outwardly from and extending lengthwise of the top or bottom of one block will fit into the groove of a similar block in an adjacent course, and that a said rib projecting outwardly from and extending upwardly at one end of one block will fit into the groove at one end of a similar block in the same course.

3. A building block according to Claim 2 wherein each of said top and bottom faces and both of said ends are provided with a projecting rib or matching groove.

4. A tile or panel having top, bottom and side edges, an outer face and opposed underside, the underside having a downwardly opening groove matching the top edge, and one side edge being shaped to interlock with the other side edge of an identical tile or panel.

5. A rib or panel according to Claim 4 wherein the lateral interlocking is effected by the overlapping of matching projections of adjacent identical tiles, the overlapped projection of the one tile having the form of a shallow channel and the overlapping projection of the other having a terminal downward lip.

6. For cladding a building having a rigid skeletal structure, the combination of a pair of elongate members presenting parallel mutually facing edges, at least one cladding panel, and means for holding opposed end portions of the panel against rearward faces (relative to the face of the cladding panel) of the respective elongate members the edge of at least one of said elongate members being rebated over a plurality of spaced apart length portions, said combination being for assembly by introducing an end portion of said at least one cladding panel rearwardly through one or more of the rebates and lowering or raising the same to bear against the rearward faces of the elongate members.

7. A building block adapted to interlock with a similar block substantially as described with reference to Figures 1—13, 20 and 24 of the drawings.

8. A tile or panel substantially as described with reference to Figures 14-23 of the drawings.

9. A system for the support of wall panels substantially as described with reference to Figures 25-27 of the drawings.